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PATENT SPECIFICATION

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COMPLETE SPECIFICATION.

Improvements in or relating to Wardrobes and like Cabinets.

I, HARRY WOOLF, a British Subject, of 20, Russell Court, Woburn Place, London, W.C.1, (formerly of 42, Aberdeen Park, Highbury, London, N.5,) do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement :—

10 This invention relates to wardrobes and like cabinets.

Cabinets have previously been proposed in which a body, usually cylindrical, is provided with an opening in its curved surface, said opening being arranged to be closed by a door which is arcuate in plan and is supported upon rearwardly extending brackets so that it swings edgewise around the cabinet, about a vertical axis disposed a substantial distance behind the door when in its closed position.

It is the object of the invention to provide an improved form and construction of wardrobe or the like which has doors pivoted to move edgewise and which is neat in appearance and is particularly convenient in use.

In a cabinet comprising a body, and a door which is curved in plan and is mounted to swing angularly about a vertical axis disposed a substantial distance behind the door when closed, said door being movable edgewise along an arcuate path about the said vertical axis, from the closed position to an open position in which it overlaps that part of the body alongside the door opening, the invention is characterised by the fact that the door has, in plan at its forward part, a flat or nearly flat extension which is disposed substantially tangentially to the curved portion of the door, and lies wholly outside the arcuate path in which the curved portion swings.

Where the cabinet has an opening which is closed by a pair of doors, preferably each door

is pivotally mounted to swing about a corresponding vertical axis disposed a substantial distance behind the door when closed, and each door is in plan curved rearwards at its outer portion, the sides of the body being shaped to allow the doors to swing open sideways and rearwards, each with a simple pivotal motion about the corresponding vertical swing axis. Conveniently a fixed upright extends from top to bottom of the body opening and forms an abutment stop for both doors. Preferably the sides of the body are externally curved in plan each concentrically with the corresponding swing axis, and the respective doors swing in close proximity to the curved external surfaces of said sides. If desired the body may be supported upon a foot or feet at each end, the doors being mounted at their bottoms by brackets which are fixed at their front ends to the doors and are pivotally connected at their rear ends to the bottom of the body; said brackets being accommodated and swinging within the space between the feet at opposite ends of the body. Thus the bottom brackets of the doors may be substantially J-shaped, the curved portion of each being attached to the door adjacent the forward edge thereof so as to enable the door to be opened fully before the bracket reaches the foot at the corresponding side of the body. Each door can be supported at its upper part by a top bracket which is rigidly attached to the door and extends rearwards over the top of the body, the rear end of the bracket being pivotally connected to the body about the swing axis.

The ends of the body may comprise rigid laminated elements each of which is cylindrically curved about a vertical axis, said elements being arcuate in plan; thus the elements forming the ends of the body subtend an angle of substantially 90° at the axis of curvature. Each of the doors may be substantially planar only at its forward

portion, its rearward portion being cylindrically curved about an axis coinciding with the swing axis of the door; thus the door may comprise a rigid laminated element fabricated so that its rearward portion is cylindrically curved about a vertical axis.

One embodiment of the invention is illustrated by way of example in the accompanying diagrammatic drawings, in which:—

Figure 1 is a front elevation of a wardrobe or like cabinet, the left-hand door open and the right-hand door being closed;

Figure 2 is a plan taken partly in section on the line 2—2 of Figure 1 and showing both doors closed; and

Figure 3 is an inverted plan view of the cabinet shown in Figures 1 and 2, both of the doors being in their fully open position.

The cabinet comprises a body which is indicated generally at 10 and is of a somewhat oval shape in plan as will be noted in Figures 2 and 3. The body has a top 11 and a bottom 12, these both being horizontal and being connected together by a back 13 which is planar and by two side members 14 and 15 which are arcuate in plan, as shown in Figure 2, each being cylindrically curved (i.e. curved like the surface of a cylinder) about a pair of vertical axes indicated at 16 and 17. Each of the side members 14, 15 conveniently subtend an angle of approximately 90° at the corresponding vertical swing axis 16 or 17. The body 10 stands upon a pair of block-like feet 18 and 19 fixed to the body 10 beneath the sides 14 and 15 thereof, each of the feet extending for nearly the full depth of the body 10 so as to provide a firm support for the latter. At its front the body 10 is provided with an upright 20 in the form of a post which is securely fastened to the bottom 12 and the top 11; the body 10 therefore has two front openings one of which is indicated at 21 in Figure 2.

In order to close these openings a pair of doors 22 and 23 is provided. These doors are not hinged in the ordinary manner but each is mounted to have a motion resembling that of a sliding door except that the path of movement is curved, movement of said door in the opening direction causing it to be carried around the corresponding side of the body 10. Thus the door 22 is provided at its top with a somewhat sector-shaped rigid lug or bracket 24 which extends rearwards and is drilled at its rear end to fit pivotally upon a spigot 25 securely fastened to the top 11 of the body 10; the spigot 25 is positioned so that it is concentric with the axis 16. As will be seen in Figure 1, the bracket 24 is disposed above the top 11 and the door 22 is designed so as to be of sufficient height to hide the bracket 24 from normal view when the door is closed. The bottom part of the door 22 is carried by a bracket or arm 26 which is substantially J-shaped, the shorter

limb being flattened and firmly attached to the bottom edge of the door 22 as indicated at 27, while the longer limb is drilled to fit pivotally upon a spigot 28 extending downwards from the bottom 12 of the body 10. The spigot 28 is also concentric with the axis 16. It will be seen in Figure 2 that the forward part 29 of the door 22 (i.e. that part which is foremost as the door moves towards its fully closed position) is substantially plane, whereas the rearmost portion 30 is cylindrically curved about the axis 16 and its internal surface 31 is of such a radius that it has a small operating clearance relative to the external surface 32 of the side 14. Thus as the door 22 is pushed to the left it follows an arcuate path around the outside of the side 14, the plane portion 29 of the door having a substantially tangential disposition. The door 22 is shown in Figure 3 in its fully open position and it will be seen that the curvature of the bracket or arm 26 is provided to escape and accommodate the corresponding foot 18, the bracket or arm 26, of course, operating in the space between said feet 18, 19. When the door 22 is in its fully closed position its forward edge abuts against the upright 20 and it can be secured thereto by a suitable latch or lock, not shown, such for instance as those normally used for the roll tops of desks. It will be seen that the door 23 is mounted in a similar manner to cover the opening 21, the top bracket being indicated at 24a in Figure 3 and the bottom bracket or arm at 26a, these both being pivoted concentric to the axis 17.

Owing to the curved nature of the sides 14 and 15 they contribute greatly to the strength of the body 10, thus enabling the structure to be relatively light. The sides 14 and 15 may advantageously be made of ply-wood or other laminated material especially moulded to the desired curvature, and this also applies to the doors 22 and 23; the cylindrically curved portions 30 of these doors greatly adds to their strength and minimises risk of warping during service.

The improved wardrobe has a very neat appearance due to its rounded ends, and it is moreover especially suitable for use in small bedrooms and the like where space is limited, for the doors require very little free space to open, this being due to the oblique motion of the extensions.

It will be understood that various modifications may be made to suit design requirements and the various methods of manufacture. Thus in some cases only one door of the form described may be used. If desired the doors may be mounted on curved runners, or in curved grooves or the like at the top and/or bottom instead of being carried by pivoted arms or brackets. Moreover, the feet 18, 19 may be replaced by a box type base having in its front a horizontal slot

through which the brackets or arms 26, 26a extend. If desired J-shaped brackets may be used at the top as well as the bottom of the or each door.

5 The invention is particularly useful for the cabinets of television sets, the curved doors when closed being used to conceal and protect the screen; the doors can be readily swung apart when the set is required for use.

10 What I claim is :—

1. A cabinet comprising a body, and a door which is curved in plan and is mounted to swing angularly about a vertical axis disposed a substantial distance behind the door
15 when closed, said door being movable edgewise along an arcuate path about the said vertical axis, from the closed position to an open position in which it overlaps that part of the body alongside the door opening, wherein the door has, in plan at its forward
20 part, a flat or nearly flat extension which is disposed substantially tangentially to the curved portion of the door, and lies wholly outside the arcuate path in which the curved portion swings.

2. A cabinet as claimed in Claim 1, having an opening which is closed by a pair of doors, wherein each door is pivotally
30 mounted to swing about a corresponding vertical axis disposed a substantial distance behind the door when closed, and each door is in plan curved rearwards at its outer portion, the sides of the body being shaped to allow the doors to swing open sideways and
35 rearwards, each with a simple pivotal motion about the corresponding vertical swing axis.

3. A cabinet as claimed in Claim 2, wherein a fixed upright extends from top to bottom of the body opening and forms an
40 abutment stop for both doors.

4. A cabinet as claimed in Claim 2 or 3, wherein the sides of the body are externally curved in plan each concentrically with the corresponding swing axis, and the respective
45 doors swing in close proximity to the curved external surfaces of said sides.

5. A cabinet as claimed in any of Claims 2 to 4, wherein the body is supported upon a foot or feet at each end, and the doors are
50 mounted at their bottoms by brackets which

are fixed at their front ends to the doors and are pivotally connected at their ends to the bottom of the body, said brackets being accommodated and swinging within the
55 space between the feet at opposite ends of the body.

6. A cabinet as claimed in Claim 5, wherein the bottom brackets of the doors are substantially J-shaped, the curved portion
60 of each being attached to the door adjacent the forward edge thereof so as to enable the door to be opened fully before the bracket reaches the foot at the corresponding side of the body.

7. A cabinet as claimed in any of Claims 2 to 6, wherein each door is supported at its upper part by a top bracket which is rigidly
65 attached to the door and extends rearwards over the top of the body, the rear end of the bracket being pivotally connected to the body about the swing axis.

8. A cabinet as claimed in any of Claims 2 to 7, wherein the ends of the body comprise rigid laminated elements each of which is
75 cylindrically curved about a vertical axis, said elements being arcuate in plan.

9. A cabinet as claimed in Claim 8, wherein the elements forming the ends of the body subtend an angle of substantially 90° at
80 the axis of curvature.

10. A cabinet as claimed in any of Claims 2 to 9, wherein each of the doors is planar at its forward portion, and its rearward
85 portion is cylindrically curved about an axis coinciding with the vertical swing axis of the door.

11. A cabinet as claimed in Claim 10, wherein each door comprises a rigid laminated
90 element fabricated so that its rearward portion is cylindrically curved about a vertical axis.

12. An improved cabinet substantially as described with reference to the accompanying diagrammatic drawings.

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PROVISIONAL SPECIFICATION.

Improvements in or relating to Wardrobes and like Cabinets.

95 I, HARRY WOOLF, a British Subject, of 42, Aberdeen Park, Highbury, London, N.5, do hereby declare this invention to be described in the following statement :—

This invention relates to wardrobes and
100 like cabinets.

It is the object of the invention to provide an improved form and construction of wardrobe or the like which is neat in appearance and is particularly convenient in use.

In a cabinet having a door which is part-
105 cylindrically arcuate and is mounted to swing about an axis substantially coincident with

the centre of curvature of the arc, according to one aspect of the invention the door has at one side an extension of the arcuate portion extending substantially tangentially with respect to said arcuate portion. The extension may be plane or may be curved or otherwise shaped (as seen in section taken at right angles to the mounting axis) so that it lies wholly outside an imaginary circle of which the arcuate portion forms part. This extension enables the width of the door opening to be greatly enlarged without unduly increasing the space swept by the door as it moves from its fully closed position to its fully open position and vice versa. This is because the extension also pivots about the mounting axis, which axis is substantially offset from the plane of said extension.

According to another aspect of the invention, in a wardrobe or like cabinet having closure means comprising a pair of doors, each of said doors is arcuate in plan and when closed extends partly around the corresponding end of the cabinet, each of said doors also being mounted to swing about a vertical axis disposed between the front and back of the cabinet, substantially coincident with the centre of curvature of the arc. Each door is preferably formed, at the part nearest the other door, with an extension which is plane or nearly plane and which extends substantially tangentially, the two extensions together acting as the central front part of the cabinet when both of the doors are closed. As the doors are opened each of these extensions swings obliquely (as distinct from the radial disposition of an ordinary door as it swings) so that only a relatively small space is swept and the extension finally comes to rest at the end of the wardrobe or equivalent, with little or no forward projection. Conveniently the extensions close against a central fixed upright, although they can if desired be arranged to meet one another. For their pivotal mounting each door can be provided with sector plates or radial arms at their top and bottom, each individually connected pivotally to the top or bottom of the cabinet or equivalent.

The preferred embodiment of the invention will now be described by way of example, as applied to a wardrobe or like cabinet having two doors. The body of the cabinet is somewhat oval in plan, with a flat front and back, and with semi-cylindrical sides or ends. The back wall is curved forwards at these sides so as to terminate approximately half way between the planes of the front and back. The oval-shaped top and bottom are connected together by the back, and at the front by a relatively narrow central upright.

A foot or base structure supports the base of the cabinet a few inches above floor level, a clearance space being left between the base structure and each of the two semi-circular end parts of the bottom.

The front is normally closed by two doors each of which comprises a side portion, which is bent to conform to the surface of a quarter cylinder, and a front portion which constitutes a tangential extension of the side portion; the width of the front portion is conveniently somewhat less than the radius of the side portion, and this radius is selected so as to be only very slightly greater than that of the curved sides of the back. In fact, the outside curvature of the back is preferably the same as the curvature of the inside of the door, thus enabling these parts to slide relatively with the minimum working clearance. A pair of sector shaped plates or radial arms is attached to each door at its arcuate part only, one at the top and one at the bottom, and these are pivoted individually to the top and bottom of the cabinet; the lower plate or arm is disposed below the bottom and the upper is above the top thereof. The position of the pivotal axis coincides with the axis of curvature of the door and also the axis of curvature of the corresponding cabinet end. When the doors are closed the extensions abut against the central upright, and are preferably provided with bolts, locks or other fastening means. The doors open with a smooth sliding motion, the sides thereof neatly passing outside the curved sides of the back, until they abut against stop battens secured to the back; the extensions follow with an oblique motion, finishing with their edges projecting very little, if any distance, in advance of the cabinet front.

The improved wardrobe has a very neat appearance due to its rounded ends, and it is simple to manufacture as the curved parts can readily be fabricated from plywood or like sheet material. It is moreover especially suitable for use in small bedrooms and the like where space is limited, for the doors require very little free space to open, this being due to the oblique motion of the extensions.

It will be understood that various modifications may be made to suit design requirements and the various methods of manufacture. Thus in some cases only one door of the form described may be used. If desired the doors may be mounted on curved runners, or in curved grooves or the like at the top and/or bottom instead of being carried by pivoted arms or sector plates.

The invention is particularly useful for the cabinets of television sets, the curved doors when closed being used to conceal and protect the screen; the doors can be readily swung apart when the set is required for use.

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